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Attorney's Docket No. 99-0917
Client's Docket No. CIL614

PATENT Utility APPLICATION COVER SHEET

BOX PATENT APPLICATION
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Sir:

Transmitted herewith for filing is the utility patent application of:

INVENTOR: JESSICA EDMOND

FOR: ILLUMINATED BICYCLE FRAME APPARATUS

Enclosed are:

- X Postcard for receipt stamp and return.
- X Applicant's Check for \$345.00, covering fees calculated below.
- X Specification with Claims, Abstract, & Declaration & Power of Attorney
- X A verified statement to establish small entity status under 37C.F.R § 1.9 and 37 C.F.R. § 1.27.
- X 3 sheets of drawing.
Cover Sheet & Assignment to: _____
Information Disclosure Statement.

The filing fee has been calculated as shown below:

	(Col. 1)	(Col. 2)	SMALL ENTITY
FOR:	No. Filed	No. Extra	RATE FEE
BASIC FEE			\$345 \$345
TOTAL CLAIMS 7	-20=	0 x09	0
INDEPENDENT CLAIMS 2	- 3=	0 x39	0
MULTIPLE DEPENDENT CLAIMS PRESENTED			+125
		TOTAL	\$345

DEPOSIT ACCOUNT AUTHORIZATION

The Commissioner is hereby authorized to charge any fees, which are not otherwise submitted and which may be required under 37 CFR 1.17 during the entire pendency of this application, to the Deposit Account # 11-0020.



March 3, 2000

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Date

03/06/00
jc710 U.S. PTO

jc564 U.S. PTO
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03/06/00

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Attorney's Docket No. 99-0917
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In the United States Patent and Trademark Office

In re Application of:
JESSICA EDMOND

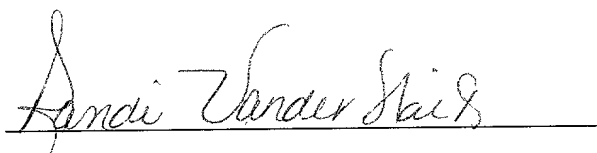
Filed: **UTILITY PATENT APPLICATION**

For: **ILLUMINATED BICYCLE FRAME APPARATUS**

Assistant Commissioner for Patents and Trademarks
Washington, D.C. 20231

Date of Deposit: March 3, 2000

I hereby certify that the attached U.S. Patent Application, informal drawings, transmittal letter, priority document, and/or Preliminary Amendment are being deposited with the United States Postal Service under Express Mail service #EL 493062978 US on the date indicated above and is addressed to the Box Patent Application, Assistant Commissioner for Patents, Washington, D.C. 20231.



March 3, 2000
Date

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Applicant or Patentee: **JESSICA EDMOND**

Serial or Patent Number:

Filed or Issued:

For: **ILLUMINATED BICYCLE FRAME APPARATUS**

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY
STATUS (37 CFR 1.9(f) and 1.27(b)) - INDEPENDENT INVENTOR**

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled as above and described in:

☒ the specification filed herewith.

☐ application serial number _____, filed _____.

☐ patent no. _____, issued _____.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

☒ no such person, concern, or organization

☐ persons, concerns or organizations listed below*

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

FULL NAME: NOT APPLICABLE

☐ INDIVIDUAL

ADDRESS: NOT APPLICABLE

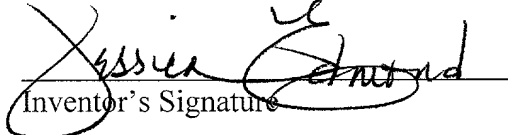
☐ SMALL BUSINESS CONCERN

☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF INVENTOR: **JESSICA EDMOND**


Inventor's Signature

Date: 2.21.00

Attorney's Docket No. K&A 99-0917
Client's Docket No. CIL614

APPLICATION

FOR UNITED STATES LETTERS PATENT

SPECIFICATION

TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN THAT I, **JESSICA EDMOND**, a citizen of
UNITED STATES OF AMERICA, have invented a new and useful
ILLUMINATED BICYCLE FRAME APPARATUS of which the
following is a specification:

ILLUMINATED BICYCLE FRAME APPARATUS

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to bicycle illumination devices and more particularly pertains to a new illuminated bicycle frame apparatus for increasing the visibility of a bicycle frame.

Description of the Prior Art

The use of bicycle illumination devices is known in the prior art. More specifically, bicycle illumination devices heretofore devised and utilized are known to consist basically of familiar, expected and obvious structural configurations, notwithstanding the myriad of designs encompassed by the crowded prior art which have been developed for the fulfillment of countless objectives and requirements.

Known prior art includes U.S. Patent No. 5,446,628; U.S. Patent No. 5,008,782; U.S. Patent No. 4,901,209; U.S. Patent No. 5,379,197; U.S. Patent No. 4,319,307; and U.S. Des. Patent No. 360,957.

While these devices fulfill their respective, particular objectives and requirements, the aforementioned patents do not disclose a new illuminated bicycle frame apparatus. The inventive device includes a bike frame. The bike frame is generally hollow and generally translucent. An illumination system includes a plurality of lights mounted in the frame. A power source powers the plurality of lights. The power source is operationally coupled to each of the plurality of lights. The power source is a plurality of solar panels mounted on the bike frame.

In these respects, the illuminated bicycle frame apparatus according to the present invention substantially departs from the conventional concepts and designs of the prior art, and in so doing provides an apparatus primarily developed for the purpose of increasing the visibility of a bicycle frame.

SUMMARY OF THE INVENTION

In view of the foregoing disadvantages inherent in the known types of bicycle illumination devices now present in the prior art, the present invention provides a new illuminated bicycle frame apparatus construction wherein the same can be utilized for increasing the visibility of a bicycle frame.

The general purpose of the present invention, which will be described subsequently in greater detail, is to provide a new illuminated bicycle frame apparatus apparatus and method which has many of the advantages of the bicycle illumination devices mentioned heretofore and many novel features that result in a new illuminated bicycle frame apparatus which is not anticipated, rendered obvious, suggested, or even implied by any of the prior art

bicycle illumination devices, either alone or in any combination thereof.

To attain this, the present invention generally comprises a
5 bike frame. The bike frame is generally hollow and generally
translucent. An illumination system includes a plurality of lights
mounted in the frame. A power source powers the plurality of
lights. The power source is operationally coupled to each of the
plurality of lights. The power source is a plurality of solar panels
10 mounted on the bike frame.

There has thus been outlined, rather broadly, the more
important features of the invention in order that the detailed
description thereof that follows may be better understood, and in
15 order that the present contribution to the art may be better
appreciated. There are additional features of the invention that
will be described hereinafter and which will form the subject matter
of the claims appended hereto.

20 In this respect, before explaining at least one embodiment of
the invention in detail, it is to be understood that the invention is
not limited in its application to the details of construction and to
the arrangements of the components set forth in the following
description or illustrated in the drawings. The invention is capable
25 of other embodiments and of being practiced and carried out in
various ways. Also, it is to be understood that the phraseology and
terminology employed herein are for the purpose of description and
should not be regarded as limiting.

30 As such, those skilled in the art will appreciate that the
conception, upon which this disclosure is based, may readily be
utilized as a basis for the designing of other structures, methods

and systems for carrying out the several purposes of the present invention. It is important, therefore, that the claims be regarded as including such equivalent constructions insofar as they do not depart from the spirit and scope of the present invention.

5

Further, the purpose of the foregoing abstract is to enable the U.S. Patent and Trademark Office and the public generally, and especially the scientists, engineers and practitioners in the art who are not familiar with patent or legal terms or phraseology, to determine quickly from a cursory inspection the nature and essence of the technical disclosure of the application. The abstract is neither intended to define the invention of the application, which is measured by the claims, nor is it intended to be limiting as to the scope of the invention in any way.

15

It is therefore an object of the present invention to provide a new illuminated bicycle frame apparatus and method which has many of the advantages of the bicycle illumination devices mentioned heretofore and many novel features that result in a new illuminated bicycle frame apparatus which is not anticipated, rendered obvious, suggested, or even implied by any of the prior art bicycle illumination devices, either alone or in any combination thereof.

25

It is another object of the present invention to provide a new illuminated bicycle frame apparatus which may be easily and efficiently manufactured and marketed.

30

It is a further object of the present invention to provide a new illuminated bicycle frame apparatus which is of a durable and reliable construction.

An even further object of the present invention is to provide a new illuminated bicycle frame apparatus which is susceptible of a low cost of manufacture with regard to both materials and labor, and which accordingly is then susceptible of low prices of sale to the consuming public, thereby making such illuminated bicycle frame apparatus economically available to the buying public.

Still yet another object of the present invention is to provide a new illuminated bicycle frame apparatus which provides in the apparatuses and methods of the prior art some of the advantages thereof, while simultaneously overcoming some of the disadvantages normally associated therewith.

Still another object of the present invention is to provide a new illuminated bicycle frame apparatus for increasing the visibility of a bicycle frame.

Yet another object of the present invention is to provide a new illuminated bicycle frame apparatus which includes a bike frame. The bike frame is generally hollow and generally translucent. An illumination system includes a plurality of lights mounted in the frame. A power source powers the plurality of lights. The power source is operationally coupled to each of the plurality of lights. The power source is a plurality of solar panels mounted on the bike frame.

Still yet another object of the present invention is to provide a new illuminated bicycle frame apparatus that may use battery power as a power source when light is not sufficient to utilize the solar panels.

These together with other objects of the invention, along with the various features of novelty which characterize the invention, are pointed out with particularity in the claims annexed to and forming a part of this disclosure. For a better understanding of the invention, its operating advantages and the specific objects attained by its uses, reference should be made to the accompanying drawings and descriptive matter in which there are illustrated preferred embodiments of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

Figure 1 is a schematic side view of a new illuminated bicycle frame apparatus according to the present invention.

Figure 2 is a schematic cross-section view taken along line 2-2 of the present invention.

Figure 3 is a schematic perspective view of the illumination system of the present invention.

Figure 4 is a schematic cross-sectional view of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

With reference now to the drawings, and in particular to Figures 1 through 4 thereof, a new illuminated bicycle frame apparatus embodying the principles and concepts of the present

invention and generally designated by the reference numeral 10 will be described.

As best illustrated in Figures 1 through 4, the illuminated bicycle frame apparatus 10 generally comprises a bike frame 12. The bike frame is generally hollow. The bike frame has a distal portion 14 and a proximal portion 16 and includes a plurality of bars. The bike frame 12 has a handle bar portion 18, which is rotatably coupled to the proximal portion 16. A seat mounting bar portion 20 is positioned generally between the proximal portion 16 and the distal portion 14. Each of the bars has a peripheral wall 22, is generally hollow and has an inside surface 24. The bike frame 12 is translucent, and is ideally made from a rigid plastic.

A fiber optic illumination system 26 includes a fiber optic light canal 28. The fiber optic light canal 28 has a front side 30 and a back side 32. The fiber optic canal 28 is mounted in the handle bar portion 18.

A housing 34 holds the fiber optic light canal 28. The housing 34 has a bore 36 therethrough for passage of the handle bar. The fiber optic light canal 28 is generally positioned in the bore 36.

A light 38 is mounted in the back side 32 of the fiber optic light canal 28 such that the light is directed toward the front side 30 of the fiber optic light canal 28.

A plurality of fiber optic cables 40 each has opposite ends. A first 41 of the ends is positioned in the light canal 28, and a length of each of the cables 40 is positioned in the interior surface 24 of

the peripheral wall 22 of the bars of the frame 12. The interior surface 24 of the peripheral walls 22 of the bars has fiber optic cable receiving corridors 42 therein. In the preferred embodiment, depicted in Figure 4, the corridors 42 have grooves 44 therein for dispersing light.

An actuating means 46 turns the light 38 on and off. The actuating means 46 is mounted in a surface of the housing 34 and is operationally coupled to the light 38. The actuating means is a switch.

A power source powers the light. The power source is operationally coupled to the actuating means 46. The power source is a battery, not shown, which is mounted in the housing.

An auxiliary power source comprises a plurality of solar panels 48 fixedly mounted on the distal portion 14 and the proximal portion 16 of the frame 12. Each of the solar panels 48 is operationally coupled to the actuating means 46. The solar panels 48 can be adapted to recharge the battery or be the primary source of power.

In use, the user of the frame simply turns the light 38 on when the user feels an illuminated bike would be safer. The fiber optic cables 40 draw light throughout the frame 12 and make the frame very visible from all angles.

As to a further discussion of the manner of usage and operation of the present invention, the same should be apparent from the above description. Accordingly, no further discussion relating to the manner of usage and operation will be provided.

With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

CLAIMS

I claim:

1. An illuminated bicycle frame apparatus, said apparatus comprising:
 - a bike frame, said bike frame being generally hollow, said bike frame being generally translucent;
 - an illumination system, said illumination system comprising:
 - a plurality of lights mounted in said frame; and
 - a power source for powering said plurality of lights, said power source being operationally coupled to each of said plurality of lights, said power source being a plurality of solar panels mounted on said bike frame.
2. The illuminated bicycle frame apparatus as in claim 1, said bike frame comprises:
 - said bike frame having a distal portion and a proximal portion, said bike frame comprising a plurality of bars, said bike frame having a handle bar portion, said handle bar portion being rotatably coupled to said proximal portion, said bike frame having a seat mounting bar portion, said seat mounting bar portion being positioned generally between said proximal portion and said distal portion, each of said bars having a peripheral wall, each of said bars being generally hollow and having an inside surface, said bike frame comprising rigid plastic.

3. The illuminated bicycle frame apparatus as in claim 2, wherein said illumination system comprises:

- a fiber optic illumination system, said fiber optic illumination system comprising;

- a fiber optic light canal, said fiber optic light canal having a front side and a back side;

- a housing for holding said fiber optic light canal, said housing having a bore therethrough for passage of said handle bar, said fiber optic light canal being generally positioned in said bore;

- a light, said light being mounted in said back side of said fiber optic light canal such that said light is directed toward said front side of said fiber optic light canal; and

- a plurality of fiber optic cables, each of said cables having opposite ends, a first of said ends being positioned in said light canal, a length of each of said cables being positioned in an interior surface of said peripheral wall of said bars of said frame.

4. The illuminated bicycle frame apparatus as in claim 3, said fiber optic illumination system comprises:

- said interior surface of said peripheral walls of said bars having fiber optic cable receiving corridors

therein, said corridors having grooves therein for dispersing light.

5. The illuminated bicycle frame apparatus as in claim 3, further comprising:

an actuating means for turning said light on and off,
said actuating means being mounted in a surface of
said housing, said actuating means being
operationally coupled to said light, said actuating
means being a switch.

6. The illuminated bicycle frame apparatus as in claim 5, further comprising:

a second power source for powering said light, said
second power source being operationally coupled
to said actuating means, said second power source
being a battery, said battery being mounted in said
housing.

7. An illuminated bicycle frame apparatus, said apparatus comprising:

a bike frame, said bike frame being generally hollow, said
bike frame having a distal portion and a proximal
portion, said bike frame comprising a plurality of bars,

said bike frame having a handle bar portion, said handle bar portion being rotatably coupled to said proximal portion, said bike frame having a seat mounting bar portion, said seat mounting bar portion being positioned generally between said proximal portion and said distal portion, each of said bars having a peripheral wall, each of said bars being generally hollow and having an inside surface, said bike frame being translucent, said bike frame comprising rigid plastic;

a fiber optic illumination system, said fiber optic illumination system comprising;

a fiber optic light canal, said fiber optic light canal having a front side and a back side, said fiber optic canal being mounted in said handle bar portion;

a housing for holding said fiber optic light canal, said housing having a bore therethrough for passage of said handle bar, said fiber optic light canal being generally positioned in said bore;

a light, said light being mounted in said back side of said fiber optic light canal such that said light is directed toward said front side of said fiber optic light canal;

a plurality of fiber optic cables, each of said cables having opposite ends, a first of said ends being positioned in said light canal, a length of each of said cables being positioned in an interior surface of said peripheral wall of said bars of said frame, said interior surface of said peripheral walls of said bars having fiber optic cable receiving

corridors therein, said corridors having grooves therein for dispersing light;

an actuating means for turning said light on and off, said actuating means being mounted in a surface of said housing, said actuating means being operationally coupled to said light, said actuating means being a switch;

a power source for powering said light, said power source being operationally coupled to said actuating means, said power source being a battery, said battery being mounted in said housing; and

an auxiliary power source, said auxiliary power source comprising a plurality of solar panels, said solar panels being fixedly mounted on said distal portion and said proximal portion of said frame, each of said solar panels being operationally coupled to said actuating means.

ABSTRACT OF THE DISCLOSURE

5 A illuminated bicycle frame apparatus for increasing the
visibility of a bicycle frame. The illuminated bicycle frame
apparatus includes a bike frame. The bike frame is generally
hollow and generally translucent. An illumination system includes
a plurality of lights mounted in the frame. A power source powers
10 the plurality of lights. The power source is operationally coupled
to each of the plurality of lights. The power source is a plurality of
solar panels mounted on the bike frame.

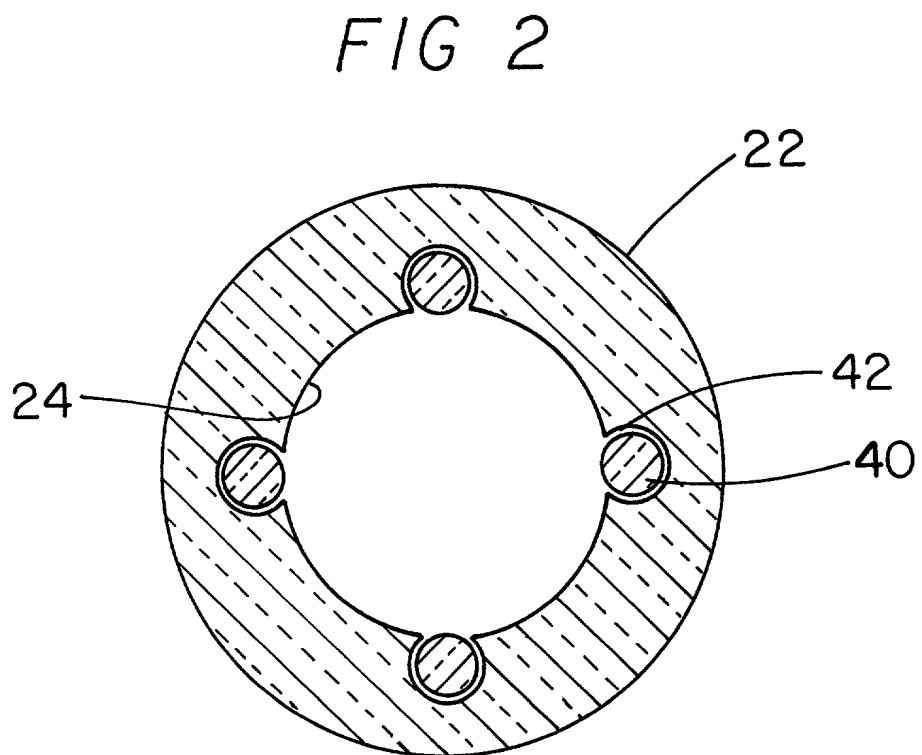
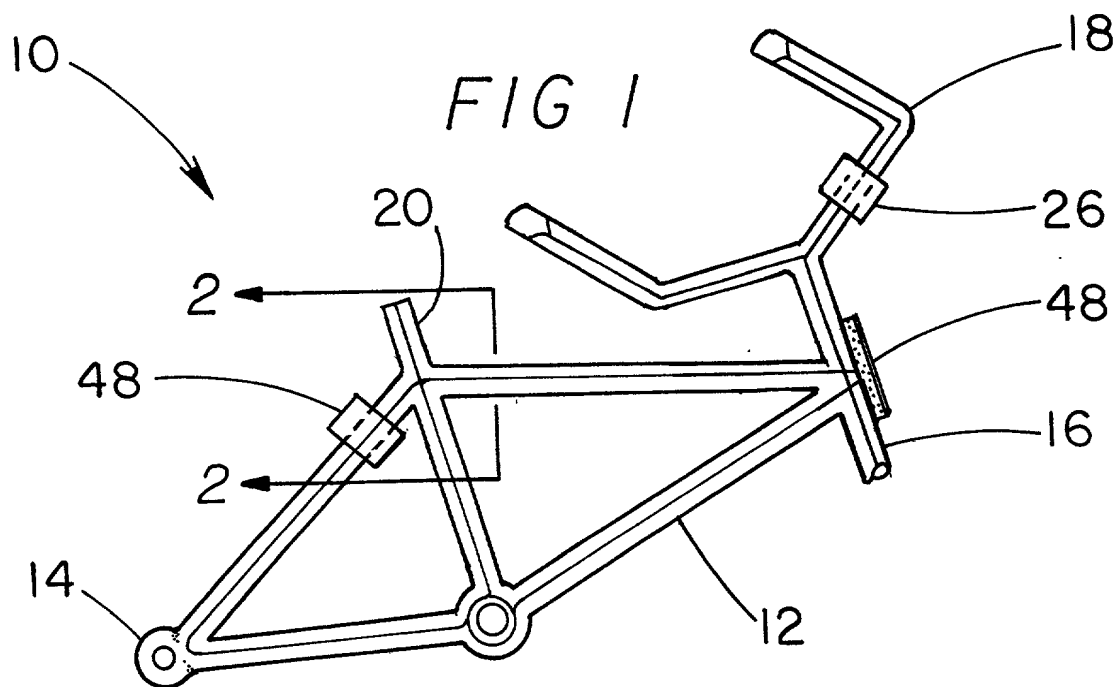


FIG 3

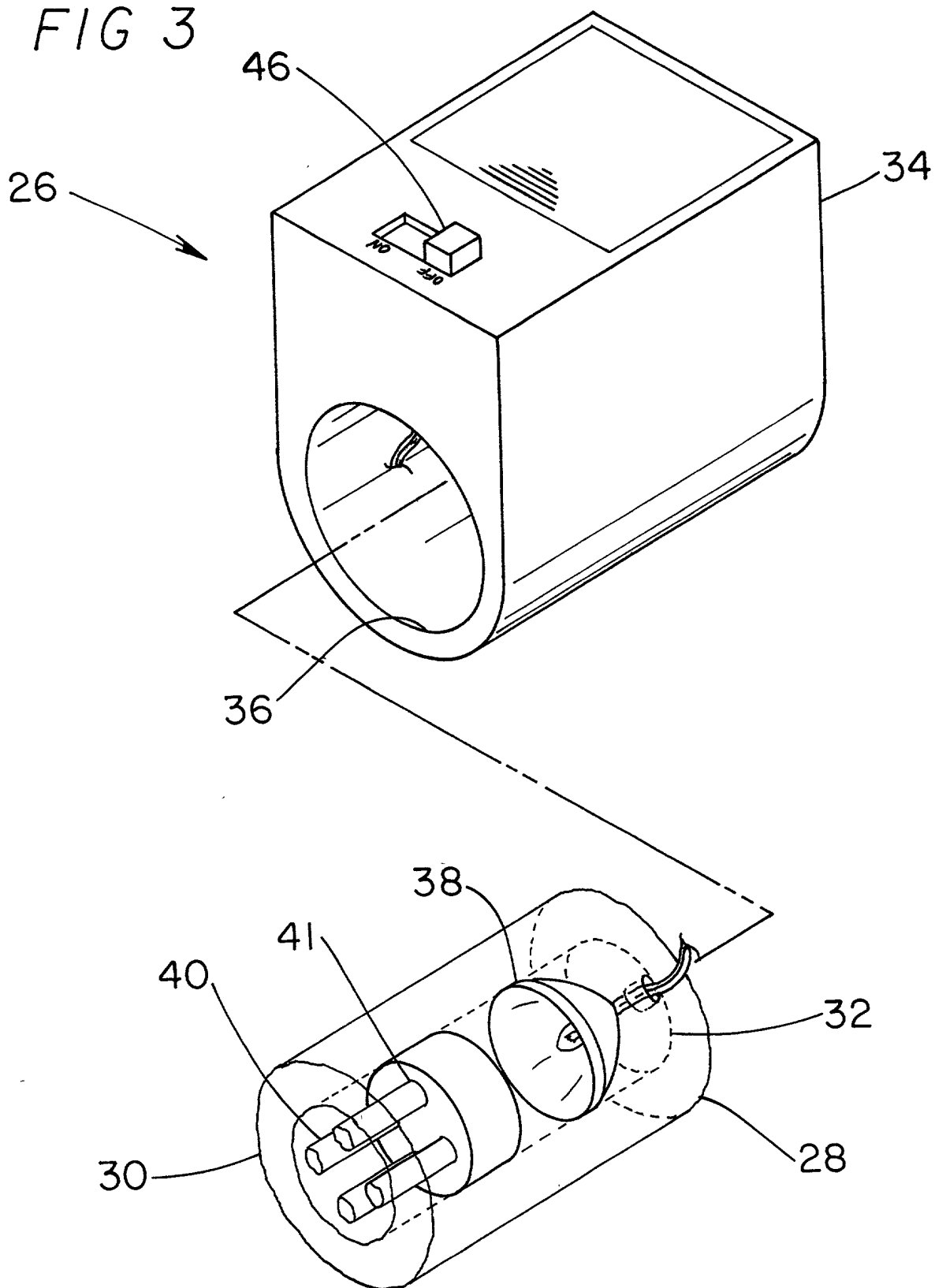
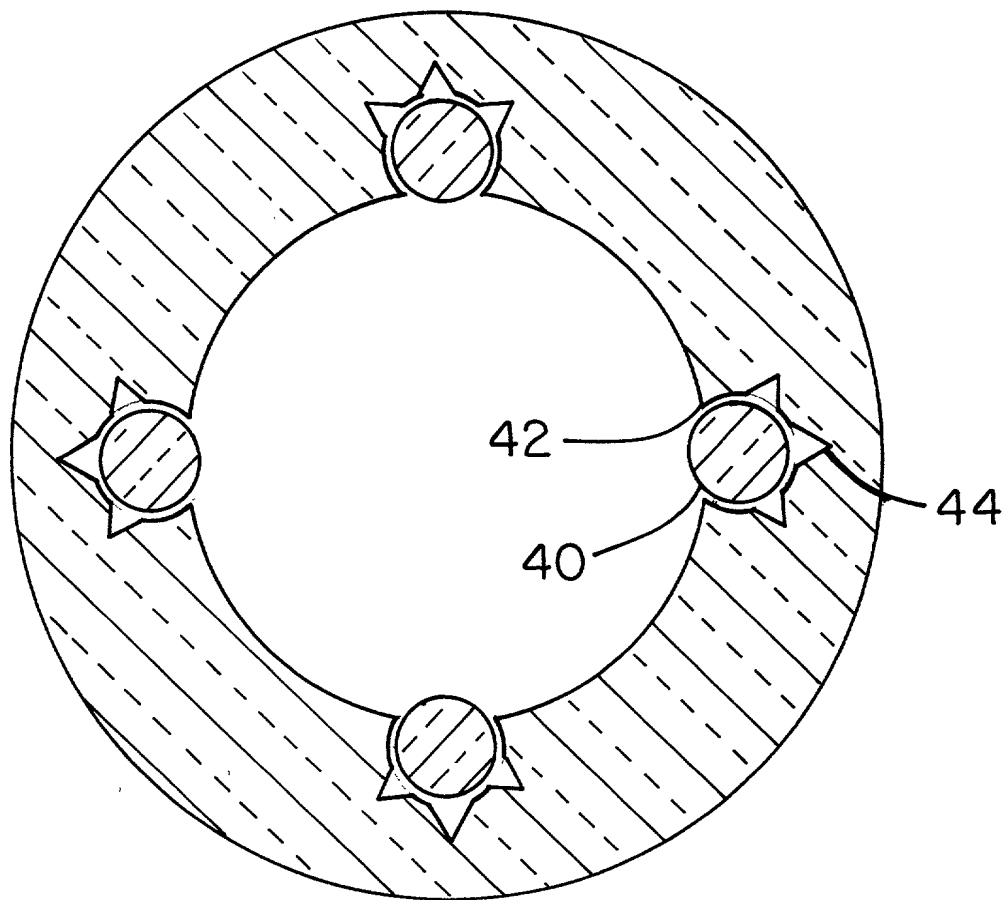


FIG 4



DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

ILLUMINATED BICYCLE FRAME APPARATUS

the specification of which is attached hereto.

I further state that I do not know and do not believe that the above-named invention has ever been known or used in the United States before my invention thereof, or patented or described in any printed publication in any country before my invention thereof, or in public use or on sale in the United States more than one year prior to this application; that the invention has not been patented or made the subject of any inventor's certificate in any country foreign to the United States on any application filed by me or my legal representatives or assigns more than one (1) year prior to this application; and that no application for patent or inventor's certificate on the invention has been filed by me or my representatives or assigns in any country foreign to the United States, except as identified below.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment if applicable.

I acknowledge the duty to disclose information to the Patent and Trademark Office all information known to me to be material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

Priority Claimed

<u>NONE</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
(Number)	(Country)	(Day/Month/ Year Filed)	(Yes)	(No)

I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States Provisional application(s) listed below:

<u>NONE</u>	<u> </u>
(Application No.)	(Filing Date)

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s), or Section 365 (c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, Section 112. I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

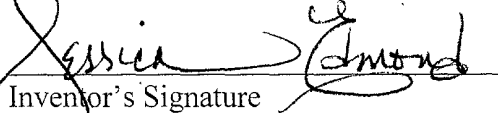
<u>NONE</u>	<u> </u>	<u> </u>
(Application No.)	(Filing Date)	(Status - patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorneys to prosecute this application and transact all business in the U.S. Patent and Trademark Office connected therewith: Ivar M. Kaardal, Registration Number 29,812.

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Full Name of Inventor: **JESSICA EDMOND**


Inventor's Signature

Date: 2.21.00

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